REMARKS

Initially, in the Office Action dated June 22, 2004, the Examiner objects to the specification because of informalities and because of the listing of references in the specification. The title is objected as not being descriptive. The Abstract of the Disclosure has been objected to because of informalities. Claims 1, 3, 4, 7, 9 and 12 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,212,730 (Wheatley et al.). Claims 2, 5, 6, 8, 10, 11 and 13 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Wheatley et al. in view of U.S. Patent No. 5,930,754 (Karaali et al.) and further in view of U.S. Patent No. 6,029,132 (Kuhn et al.).

By the present response, Applicants have submitted a new title of the invention and Abstract. Further, Applicants have amended the specification and claim 1 to further clarify the invention. Claims 1-13 remain pending in the present application.

Specification Objections

The disclosure has been objected to because of informalities. Applicants have amended the disclosure to further clarify the invention and respectfully request that these objections be withdrawn.

Specification Listing of References

The Examiner has noted that the listing of references in the specification is not a proper Information Disclosure Statement under 37 C.F.R. §1.98(b). Applicants are submitting concurrently with this response an IDS and 1449 Form listing these

references in proper format and respectfully request that the Examiner consider these references before any subsequent Office Action is issued.

Title of the Invention

The Examiner has required a new title asserting that the title of the invention is not descriptive. Applicants have submitted a new title to conform with this requirement.

Abstract Objection

The Examiner has objected to the Abstract of the Disclosure requiring that "Figure 4" be removed. Applicants have submitted a new Abstract of the Disclosure and respectfully request that this objection be withdrawn.

35 U.S.C. §103 Rejections

Claims 1, 3, 4, 7, 9 and 12 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Wheatley et al. Applicants respectfully traverse these rejections.

Wheatley et al. discloses a name recognition system used to provide access to a database based on the voice recognition of a proper name spoken by a person who may not know the correct pronunciation of the name. During an enrollment phase, for each name-text entered into a text database, text-derived recognition models are created for each of a selected number of pronunciations of a name-text, with each recognition model being constructed from a respective sequence of phonetic features generated by a Boltzmann machine. During a name recognition phase, the spoken input of a name (by a person who may not know the correct

pronunciation) is compared with the recognition models, looking for a pattern match-selection of a corresponding name-text is made based on a decision rule.

Regarding claims 1, 4 and 9, Applicants submit that Wheatley et al. does not disclose or suggest the limitations in the combination of each of these claims of, inter alia, speech recognition that includes generating sequences of multilingual phoneme symbols based on text input by means of a multilingual text-to-phoneme module. The Examiner asserts that these limitations in the claims of the present application are disclosed in Wheatley et al. at col. 4, lines 17-25 and the Boltzmann machine 13. However, this portion of Wheatley et al. merely discloses that a name-text is repetitively input to an appropriately configured Boltzmann machine which is reset to a random state prior to each input, and that for each name-text input, the Boltzmann machine generates a phonetic feature sequence. This is not generating sequences of multilingual phoneme symbols based on text input by means of a multilingual text-to-phoneme module, as recited in the claims of the present application. These portions of Wheatley et al. merely disclose generating a phonetic feature sequence, which relates to an audio pronunciation. In contrast, the claims of the present application relate to generating multilingual phoneme symbols which relate to symbols, not audio, as disclosed in Wheatley et al. Further, these symbols are then used to generate pronunciations according to the present invention. Audio and symbols are completely different.

Moreover, if the invention disclosed in Wheatley et al. was modified so that it used multilingual phoneme symbols the results would be the same as it is without

this modification. The allowable pronunciations are determined by the principle of branched grammar (see the detailed description of the specification) producing sets of all pronunciations that are allowed in the supported languages. Modifying Wheatley et al. does not yield the same results as recited in the claims of the present application.

Regarding claims 3, 7 and 12, Applicants submit that these claims are dependent on one of independent claims 1, 4 and 9 and, therefore, are patentable at least for the same reasons noted regarding these independent claims. For example, Applicants submit that Wheatley et al. does not disclose or suggest deriving the text input from a database containing user entered text strings.

Accordingly, Applicants submit that Wheatley et al. does not disclose, suggest or render obvious the limitations in the combination of each of claims 1, 3, 4, 7, 9 and 12 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

Claims 2, 5, 6, 8, 10, 11 and 13 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Wheatley et al. in view of Karaali et al. and Kuhn et al. Applicants respectfully traverse these rejections.

Karaali et al. discloses providing, in response to orthographic information, efficient generation of a phonetic representation. The method provides for, in response to orthographic information, efficient generation of a phonetic representation, using the steps of: inputting an orthography of a word and a predetermined set of input letter features; utilizing a neural network that has been

trained using automatic letter phone alignment and predetermined letter features to provide a neural network hypothesis of a word pronunciation.

Kuhn et al. discloses a two stage pronunciation generator utilizing mixed decision trees that include a network of yes-no questions about letter, syntax, context and dialect in a spelled word sequence. A second stage utilizes decision trees that include a network of yes-no questions about adjacent phonemes in the phoneme sequence corresponding to the spelled word sequence. Leaf nodes of the mixed decision trees provide information about which phonetic transcriptions are most probable. Using the mixed trees, scores are developed for each of a plurality of possible pronunciations, and the scores can be used to select the best pronunciation as well as to rank pronunciations in order of probability.

Applicants submit that claims 2, 5, 6, 8, 10, 11 and 13 are dependent on one of independent claims 1, 4 and 9 and, therefore, are patentable at least for the same reasons noted previously regarding these independent claims. Applicants submit that neither Karaali et al. nor Kuhn et al. overcome the substantial defects noted previously regarding Wheatley et al. For example, Applicants submit that none of the cited references disclose or suggest where the text input is processed letter by letter, and wherein a neural network provides an estimate of the posterior probabilities of the different phonemes for each letter, or where the neural network is a standard fully-connected feed forward multiplayer perceptron neural network.

Accordingly, Applicants submit that none of the cited references, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in

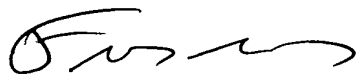
the combination of each of claims 2, 5, 6, 8, 10, 11 and 13 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

In view of the foregoing amendments and remarks, Applicants submit that claims 1-13 are now in condition for allowance. Accordingly, early allowance of such claims is respectfully requested.

To the extent necessary, Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (referencing attorney docket no. 1030.40616X00).

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP



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